

Interview Summary

Application No.

10/040,728

Applicant(s)

ZECK ET AL.

Examiner

Eric B Fuller

Art Unit

1762

All participants (applicant, applicant's representative, PTO personnel):

(1) Eric B Fuller.

(3) _____.

(2) Steve Shear.

(4) _____.

Date of Interview: 26 August 2003.

Type: a) ☐ Telephonic b) ☐ Video Conference

c) ☒ Personal [copy given to: 1) ☒ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.

If Yes, brief description: _____.

Claim(s) discussed: 1, 15, 20, 31 and 34.

Identification of prior art discussed: US 6,294,022 B1; US 4,387,340; and US 6,064,940.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: _____.

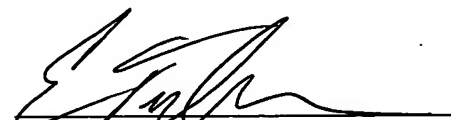
(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

discussed proposed amendments to claims (attached).

Examiner expressed that the changes would overcome the art of record. Also expressed that it appears the case would be allowable. However, an updated search would need to be performed.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of)	
)	Examiner: Eric B. Fuller
Joseph Zeck et al.)	
)	Art Unit: 1762
Serial No: 10/040,728)	
)	Attorney Docket: DCI-P19C
Filed: December 29, 2001)	
)	Date: ??, 2003
For: PORTABLE LOCATOR INCLUDING)	
A GROUND MARKING ARRANGEMENT)	

CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner of Patents, Washington, D.C. 20231 on ??, 2003.

Signed: _____

Jay R. Beyer

FIRST AMENDMENT AFTER FINAL

Assistant Commissioner of Patents

Washington, D.C. 20231

Dear Sir:

The following remarks are intended as a full and complete response to the outstanding Office Action dated (mailed) June 13, 2003.

In the Claims

Please cancel claims 18, 23, 35 and 38.

Please amend claims 1, 2, 9, 13, 15, 17, 19, 20, 24, and 31-34, as follows:

1. (currently amended) A method ~~for using a portable locator including a locating arrangement which is configured for locating at least one of a buried line and a boring tool, said method~~ comprising the steps of:

configuring ~~a~~ the portable locator that is used for locating at least one of a buried line and a boring tool to integrally support a marking arrangement for use by an operator in selectively marking the surface of the ground, said locating arrangement being supported in one operating position, as part of the portable locator, in relation to said marking arrangement in another operating position, as another part of the portable locator; and

different predetermined
arranging an electronics package in the portable locator for monitoring operator actuations of the portable locator (i) to detect a ^{first} predetermined operator actuation for use in controlling the ground marking arrangement, (ii) to ^{predetermined} detect other operator actuations for use in controlling the locating arrangement and (iii) to, upon detecting the ^{first} predetermined operator actuation, initiate marking by the ground marking arrangement

~~with the portable locator, said operator establishing a location on the surface of the ground relative to at least one of said buried line and said boring tool; and~~

~~marking the location on the surface of the ground using said marking arrangement.~~

2. (currently amended) The method of Claim 1 ~~wherein~~ including configuring the marking arrangement to mark the surface of the ground is marked using aerosol paint responsive to said electronics package.

3. (original) The method of Claim 2 including the step of configuring said marking arrangement to accept a replaceable canister of aerosol paint.

4. (original) The method of Claim 1 including the step of configuring the marking arrangement such that an operator of the portable locator, in a generally upright position, locates using said locating arrangement and marks the surface of the ground using the marking arrangement.

5. (original) The method of Claim 4 wherein the marking arrangement is configured for finger actuation by said operator.

6. (original) The method of Claim 4 wherein the marking arrangement is configured for foot actuation by said operator.

7. (original) The method of Claim 5 wherein the surface of the ground is marked using aerosol paint.

8. (original) The method of Claim 6 wherein the surface of the ground is marked using aerosol paint.

9. (currently amended) The method of Claim 1 including the steps of configuring said marking arrangement for marking the surface of the ground using aerosol paint contained in a replaceable canister and providing an electrical actuation arrangement responsive to said electronics package, for causing emission of the aerosol paint from the canister in response to a finger actuation by an operator.

10. (original) The method of Claim 9 wherein said step of providing the electrical actuation arrangement includes the step of using a solenoid to cause emission of the aerosol paint.

11. (original) The method of Claim 10 wherein the solenoid includes a plunger and wherein the step of using the solenoid causes movement of the plunger which movement produces emission of the paint from the canister.

12. (original) The method of Claim 11 including the step of connecting the plunger of the solenoid with a lever and arranging the lever proximate to the canister so that movement of the plunger causes the lever to engage the canister to emit the aerosol paint.

13. (currently amended) The method of Claim 10 including the steps of interfacing the solenoid with ~~an~~ the electronics package, as part of the electrical actuation arrangement, and interfacing the electronics package with a push button switch such that the electronics package electrically actuates the solenoid responsive to the operator engaging the push button switch.

14. (original) The method of Claim 12 further comprising the steps of housing a battery pack in the portable locator and powering the solenoid and the electronics package from the battery pack.

15. (currently amended) A method for using a portable locator which is configured for locating relative to a position beneath the surface of the ground, said method comprising the steps of:

configuring the portable locator to include a marking arrangement including a canister for emitting an aerosol

paint to mark the surface of the ground;

interfacing an electronics package that is configured for performing an inground locating function within the portable locator to (i) a push button switch located for finger actuation by an operator with the operator standing in an upright position holding the portable locator and to (ii) a solenoid having a plunger;

in a first of a number of predetermined kinds of actions
others of said predetermined kind of action being provided for operating the locator

housing a battery back in the portable locator for providing power to the electronics package and the solenoid such that a predetermined actuation of the push button switch causes the electronics package to electrically drive the solenoid thereby moving the plunger of the solenoid; and

connecting the plunger of said solenoid with a lever arranged proximate to the canister such that movement of the plunger, as a result of the electronics package driving the solenoid, engages the lever with the canister resulting in emission of the aerosol paint.

16. (original) The method of Claim 15 further comprising the steps of:

with the portable locator, establishing a location on the surface of the ground relative to said position; and marking the location on the surface of the ground using said marking arrangement.

17. (currently amended) The method of Claim 15 including the step of electronically monitoring operator actuations of the ~~portable locator~~ push button switch to detect ~~the~~ a predetermined operator actuation for use in controlling the marking arrangement, to detect other operator actuations for use in controlling the locating arrangement, and to, upon detecting the predetermined operator actuation, initiate marking by the marking arrangement.

18. (canceled) The method of Claim 17 wherein said electronic monitoring step includes the step of monitoring said push button switch for said predetermined operator actuation and said other operator actuations.

19. (currently amended) The method of Claim ~~18~~ 17 wherein said electronic monitoring step includes the step of monitoring the switch for said predetermined operator actuation as a sequence of closing the switch twice in timed succession and then holding the switch closed.

20. (once amended) A method for fabricating a portable device, said method comprising the steps of:

configuring a housing arrangement to define a first operating position and to define a second operating position;

and

supporting a locating arrangement at the first operating position and supporting a ground marking arrangement at the second operating position such that the locating arrangement and the ground marking arrangement in the first and second operating positions, respectively, cooperate for use by an operator in identifying a location on the surface of the ground relative to at least one of a buried line and a boring tool with said locating arrangement and for said operator to mark the location using said ground marking arrangement; and

same as clm 1 { arranging an electronics package in the portable locator for monitoring operator actuations of the portable locator (i) to detect a predetermined operator actuation for use in controlling the ground marking arrangement, (ii) to detect other operator actuations for use in controlling the locating arrangement and (iii) to, upon detecting the predetermined operator actuation, initiate marking by the ground marking arrangement.

21. (original) The method of Claim 20 wherein the step of configuring said housing arrangement includes the steps of forming a first housing portion and a second housing portion, positioning said locating arrangement within said first housing portion, and positioning said ground marking arrangement within said second housing portion.

22. (original) The method of Claim 21 further including the step of hinging the first housing portion to the second housing portion for movement of the first and second housing portions between an operational configuration for use by said operator and a compact configuration for at least one of transport and storage.

23. [canceled] The method of Claim 20 including the step of arranging an electronics package for monitoring operator actuations of the portable device (i) to detect a predetermined operator actuation for use in controlling the ground marking arrangement, (ii) to detect other operator actuations for use in controlling the locating arrangement and (iii) to, upon detecting the predetermined operator actuation, initiate marking by the ground marking arrangement.

24. [currently amended] The method of Claim ~~23~~ 20 wherein said step of arranging the electronics package configures the electronics package to monitor a switch for said predetermined operator actuation and said other operator actuations.

25. (original) The method of Claim 24 wherein said step of arranging the electronics package uses the electronics package to monitor the switch for said predetermined operator actuation as a sequence of closing the switch twice in timed succession and then holding the switch closed.

26. (original) The method of Claim 23 20 including the step of configuring said ground marking arrangement for marking the location on the surface of the ground using aerosol paint contained in a replaceable canister.

27. (original) The method of Claim 26 wherein said step of arranging the electronics package includes the step of using a solenoid to cause emission of the aerosol paint from the replaceable canister.

28. (original) The method of Claim 27 wherein said solenoid includes a plunger and wherein said step of using the solenoid includes the step of causing movement of the plunger, which movement produces emission of the aerosol paint from the replaceable canister.

29. (original) The method of Claim 27 wherein said step of using the solenoid includes the steps of:
interfacing the solenoid with said electronics package; and
configuring the electronics package such that the electronics package electrically drives the solenoid responsive to detection of said predetermined operator actuation.

30. (original) The method of Claim 29 wherein said step of using the solenoid further includes the steps of:
housing a battery pack in the portable device; and
powering the solenoid and the electronics package from the battery pack.

31. (currently amended) A method for fabricating a portable device, said method comprising the steps of:
configuring a housing arrangement to support a locating arrangement and a marking arrangement; and
arranging an electronics package for monitoring operator actuations of the portable device (i) to detect a predetermined operator actuation for use in controlling the marking arrangement, (ii) to detect other operator actuations for use in controlling the locating arrangement in locating at least one of a buried line and a boring tool, and (iii) to, upon detecting the predetermined operator actuation, initiate marking by the marking arrangement.

*Same changes
as claim 1
but otherwise
unchanged*

32. (currently amended) The method of Claim 31 wherein said step of arranging the electronics package arranges the electronics package to monitor a switch which forms a portion of the portable device locator for said predetermined operator actuation and for said other operator actuations.

33. (previously amended) The method of Claim 32 including the step of configuring the electronics package to electrically initiate marking by the marking arrangement responsive to a sequence of closing the switch twice in timed succession and then holding the switch closed.

34. (currently amended) A method for manufacturing a portable device, said method comprising the steps of:
providing a housing arrangement;
supporting a locating arrangement in one operational orientation in said housing arrangement, said locating arrangement being configured for permitting an operator to locate at least one of a buried line and a boring tool; and
supporting a ground marking arrangement in another operational orientation for use by the operator in marking the ground such that the locating arrangement and the ground marking arrangement cooperate for use by the operator in identifying a location on the surface of the ground relative to at least one of said buried line and said boring tool and in marking the location with the marking arrangement; and

in said housing arrangement

arranging an electronics package, as part of the portable device, for monitoring operator actuations of the portable locator (i) to detect a predetermined operator actuation for use in controlling the ground marking arrangement, (ii) to detect other operator actuations for use in controlling the locating arrangement and (iii) to, upon detecting the predetermined operator actuation, initiate marking by the ground marking arrangement.

Same changes as cl. 1

35. (canceled) The method of Claim 34 including the step of arranging an electronics package in said housing to monitor operator actuations of the portable device by (i) detecting a predetermined operator actuation for use in controlling the marking arrangement, (ii) detecting other operator actuations for use in controlling the locating arrangement and (iii), upon detecting the predetermined operator actuation, initiate marking by the marking arrangement.

36. (original) The method of Claim 35 wherein said step of arranging the electronics package includes the step of configuring the electronics package to monitor a switch for said predetermined operator actuation and said other operator actuations.

37. (original) The method of Claim 36 wherein said step of configuring the electronics package customizes the electronics package to monitor the switch for said predetermined operator actuation as a sequence including closing the switch twice in timed succession and then holding the switch closed.

38. (canceled) The method of Claim 1 including the steps of (i) providing a switch for receiving control actuations from the operator for selectively controlling said portable locator and for initiating marking using said marking arrangement and (ii) electronically monitoring operator actuations of the switch to detect a predetermined operator actuation for use in controlling the marking arrangement, to detect other operator actuations for use in controlling the locating arrangement, and to, upon detecting the predetermined operator actuation of said switch, initiate marking by the marking arrangement.